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Assessment of Infant Feeding Practices and Associated Factors among employed mothers in Gondar city, North West Ethiopia.

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List of Abbreviations

ANC: Antenatal Clinic

AIDS: Acquired Immune Deficiency Syndrome

EBF: Exclusive Breast Feeding

EDHS: Ethiopian Demographic and Health Survey

IFP: Infant Feeding Practice

IQR: Inter Quartile Range

MDG: Millennium Development Goal

OIFP: Optimal Infant Feeding Practice

PPS: Probability of Proportionate to Size

SPSS: Statistical Package for Social Science

TTC: Teachers Teaching College

TBA: Traditional Birth Attendance

TTBA: Trained Traditional Birth Attendance

UOG: University of Gondar

UNICEF: United Nations Children's Fund

WHO: World Health Organization

Abstract

Introduction: Exclusive breastfeeding, followed by timely initiation and appropriate complementary feeding practices are universally accepted as essential elements for the satisfactory growth and development of infants and for prevention of childhood illness. In many developing countries, labor force participation by women in the child bearing age has increased rapidly. Social and economic changes lead to new challenges for women attempting to combine their roles as workers and mothers. Little evidence exists on complementary & exclusive breast feeding among government employed mothers and making it difficult to identify areas which require intervention.

Objective: The purpose of this study is to assess infant feeding practices and associated factors among the employed women in Gondar city.

Methods: Institution based cross sectional study was conducted from June to July, 2011 in 10 government institutions of Gondar city using self administered structured questionnaire. A total of 422 employed mothers with infant up to 12 months were selected using proportionate stratified sampling technique to ten governmental institutions. Descriptive statistics, bivariate and Multivariable logistic regression analyses were employed to identify factors associated with infant feeding practice among the employed mothers.

Results: Four hundred three participants were included in the study making the response rate of 95.4%.The prevalence of exclusive breast feeding in infants less than 6 months age was 48.4% by 24 hour recall method and 43.3% by dietary recall method since birth. The early initiations of breast feeding and complimentary feeding prevalence at six months were 67.2% and 56.6% respectively. Being in young child [AOR: 4.1 (95%C.I: 2.31-7.30)] and getting Antenatal counseling [(AOR=1.538(1.02, 2.57)], paternal education [(AOR=1.507(1.354, 2.66)] & supportive stuff [(0.398(0.196, 0.809)] in the institution were associated with exclusive breastfeeding.

Conclusion and Recommendation: Breast feeding practice was found to be common in government employee mothers, however, exclusive breast feeding and appropriate complementary feeding practice are very low. Breast feeding counseling during pregnancy, being young infant, paternal education and being supportive stuff are associated with exclusive breast feeding .Therefore improving optimal infant feeding practices to WHO recommendation through promotion of breast feeding to all government institution, institutional and Family support are important.

1. Introduction

1.1 Statement of the problem

Timely initiation of breast feeding and exclusive breastfeeding are top the table of lifesaving interventions for newborns (1, 2). Babies who do not exclusively breastfeed are six times more likely to die from diarrhea or respiratory infections than babies who do. During the first 6 months, complementary liquids and food given to infants can expose them to infectious diseases, negatively impacting their growth and development (1**).**

Children who are exclusively breastfed from birth to six months, and continuously up to two years with appropriate complimentary foods, grow up to be healthier, smarter and more productive than those who aren't." While breastfeeding is almost universally practiced in Ethiopia, appropriate breastfeeding practices are not always followed. About one third of babies do not receive breastfeeding within the first hour of birth and only half are exclusively breastfed for 6 months (1).

World Health Organization (WHO) and United Nations Children's Fund (UNICEF) recommend that all mothers should breastfeed their children exclusively for the first 6 months and thereafter they should continue to breastfeed for as long as the mother and child wish, and both appropriate and sufficient weaning food should be added after six months of life.

Exclusive breastfeeding alone has the potential to avert 13% of all under-five deaths in Africa, and 22% neonatal death would avert globally by timely initiation of breast feeding, thus significantly contributing to the realization of Millennium development goal (MDG) 1 and 4 (1*,3)*

In recent years there has been a rise in the participation rate of women in employment. Some may become pregnant while in employment and subsequently deliver their babies. Most may decide to return early to work after giving birth for various reasons. Unless these mothers get support from their employers and fellow employees, they might give up breastfeeding when they return to work. As a result, the duration and exclusivity of breastfeeding to the recommended age of the babies would be affected (5). The prevalence rate of non Exclusive breast feeding and not timely initiation of breast feeding in Ethiopia is 51% and 48% respectively , Despite its demonstrated

benefits, EBF prevalence and duration in many countries including Ethiopia are lower than the international recommendation of exclusive breastfeeding for the first six months of life (6 ,7)

A number of studies of breast feeding show that early supplementation and cessation of breast feeding continue to be common and It is commonly believed that women's work outside home is the major factor affecting breast feeding patterns (1). Women need support from the friends, family, health care services and employers and the availability of maternity entitlement like paid maternity leave, breast feeding break ,day care center ,employment guarantee are factors associated with six months exclusive breast feeding(6).

1.2. Literature review

1.2.1 Magnitude of Infant feeding practice

Worldwide the prevalence of Early Initiation of Breastfeeding, exclusive breast feeding, Median duration of Breastfeeding Rates, Bottle-feeding Rates, and Complementary Feed Rates are 51.2%, 34.8.0%, 18.6 months, 31.0% and 67.7% respectively but the International recommendations promote exclusive breastfeeding as the optimal method of infant feeding for the first six months of life, early initiation of breast feeding in the first hour of birth and complementary feeding from six months (9,10).It is estimated that sub-optimal breastfeeding, especially non-exclusive breastfeeding in the first 6 months of life, results in 1.4 million deaths and 10% of the disease burden in children younger than 5 years(11) . Complementary foods are often introduced too early or too late and are often nutritionally inadequate and unsafe, Reviews of studies from developing countries show that infants who are not breastfed are 6 (12) to 10 times (1*2*) more likely to die in the first months of life than infants who are breastfed. Diarrhea (*13*) and pneumonia (*14*) are more common and more severe in children who are artificially fed, and are responsible for many of these deaths. Diarrheal illness is also more common in artificially-fed infants even in situations with adequate hygiene, as in Belarus (15) and Scotland (16). Other acute infections, including otitis media (17), *Haemophilus influenza(18)* meningitis and urinary tract infection (19), are less common and less severe in breastfed infants. The rate of ever breast feeding history are found to be, Ethiopia (98%) Gondar (65.4%) Uganda (99%) and bottle feeding among the employed mother in ambo was 63.3 %(3).

The global low level of exclusive breast feeding (34.8%) indicates, mothers require close proximity with their infants for the first six months of life and recommends the programme managers with all international, regional or national organizations dealing with women and children have to understand the nature of support needed for women to be successful in carrying out their nurturing role like maternity entitlements such as leave or cash benefits, crèches ,flexible working hours and breastfeeding rooms at work Places(3).

Analysis on Maternity experience survey in Canada shows that the 6-month exclusive breastfeeding rate in Canada is 13.8% (20) whereas studies in Asia shows that the

prevalence of exclusive breast feeding in Thailand , and Indonesia are 11% ,and 21% respectively among the employed mothers working in government sectors, this is associated with the need to return to work and intended time to breastfeed were the significant factors affecting duration of exclusive breastfeeding(21,22).

Cross-sectional study conducted in 2006 in Japan showed that, the prevalence of exclusive breast feeding was 21.0% and the associated factor for lower prevalence of EBF at six month associated with the sufficient child care leave and consultation about child bearing with the spouse and /or, nurse and a peer in child rearing circle (23) but research done in Sri Lanka showed that employment is not associated with cession of exclusive breast feeding (24).

Breastfeeding is a tradition in every culture in Africa, but only 20 % of infants under six months are exclusively breastfed, with rates as low as 2 % in Chad, 4 % in Côte d'Ivoire. The rates of exclusive breastfeeding in west and central Africa remain among the lowest in the world and infants and young children are particularly affected by malnutrition and it is 39% in developing country where as 25% in Africa exclusively breast feed for the first 6 months (25,) are rate of bottle feeding is high in some western African countries (exceeding 30% in Tunisia ,Nigeria, Namibia and Sudan) ,nevertheless prolonged breast feeding is common and median duration of breast feeding ranges from 16 and 28 months ,urbanization ,education, and employment are major factors that tends to shorten breast feeding , Nevertheless recent trends show an increase in early initiation and in duration of breastfeeding as a result of promotion efforts deployed by WHO and United nations children's fund, local governments, and non-governmental organizations (26*).*

A research in Kenya showed that the mean number of hours the mothers were away from home due to work was 46.2 hours per week and the prevalence of exclusive breastfeeding was 13.3% at three months among employed mothers. Early introduction of complementary foods was high, with 46.4% of the employed mothers introducing other foods before one month. Breast milk insufficiency and return to work were the main reasons cited for the cessation of exclusive breastfeeding and Shift work makes it

impossible for some mothers to exclusively breastfeed their infants but have ever breast feeding rate of 98.8% at some point of time (3).

In Ethiopia, according to EDHS report in 2005, the prevalence of exclusive breast feeding is 49% which is less than the international recommendation and the median duration of exclusive breast feeding is 4.3 months ,1.6 months ,0.6 months in Amhara,Tigray and Addis Ababa respectively which is less than the world breast feeding initiative report in 2010(29).

A crossectional study on Ethiopian immigrants in Losangeles and Israel showed that the mean duration of exclusive breast feeding is 4+/-1 and 4.7 month respectively and the cause is significantly associated with employment in Losangeles but shamefulness to breast feeding in Israel (27, 28, and 29).

Concerning initiation of early breast feeding a study in south Ethiopia ,Goba ,shows that ,the prevalence of timely initiation of breast feeding was 52.4% and this was associated with formal education, being urban resident, institutional delivery and postnatal counseling on breast feeding were significantly associated with timely initiation of breastfeeding($P<0.05$) (7).

Concerning breast feeding status by age, the Ethiopian Demographic and Health Survey report revealed that, 10 percent consume breast milk and plain water, 5 percent consume breast milk and other non-milk liquids, and 11 percent consumed breast milk and other milk. Six percent of children under 2 months are given complementary foods. Complementary foods are not introduced in a timely fashion for many children. At 6-8 months of age, 14 percent of children continue to be exclusively breastfed, 9 percent receive plain water in addition to breast milk, 6 percent consume other water-based liquids, 20 percent consume other milk, and 50 percent consume complementary foods (29). Concerning the duration and frequency of breast feeding in Ethiopia the duration of breast feeding is with mean of 25.5 months and 95% of the mother breast feed 6 times in 24 hours, highly educated mothers breastfeed their children for a shorter duration than mothers with little or no education (31).

1.2.2. Infant feeding practice and Associated Factors

Internationally, research has consistently found that fulltime employment in the first postpartum year has a strong negative effect on breastfeeding duration (20, 21). Part-time employment seems to exert little or no effect on breastfeeding duration, as mothers employed part-time in the first year following birth have similar breastfeeding duration to non employed mothers of infants (20, 22, 23).

A research in Australia showed that Mothers who returned to work full-time within three months of birth were twice as likely to have stopped breastfeeding by the time their baby was six months, than those who were not employed , Mothers who returned to work full time between three and six months of birth were three times as likely to have stopped breastfeeding by the time their baby was six months than non-employed women and Women who returned to work on either a part-time or casual basis after three months were almost as likely to have stopped breastfeeding as those who worked full-time. Fatigue, inflexible work schedules and unsupportive employers and colleagues prevented many employed women from maintaining breastfeeding (12), however, only half of Australian infants receive any breast milk by six months and very few of these infants are exclusively breastfed (31). A study conducted on 313 employed women in Thailand revealed that Resumption of employment generally has negative effects on breast feeding rates and duration ,women working outside the home for long period or had shift jobs encountered many obstacles to maintain breast feeding and most gave it up within one months after resuming employment(4).

A longitudinal study done in Australia, Compared to women who were not employed at 6 months postpartum, women who resumed full-time employment were significantly less likely to be breastfeeding their 6-month-old infants. Employment resumption between 3 and 6 months in a part-time or casual capacity was also significantly more likely to reduce the probability of breastfeeding at 6 months. (31)

A crossectional study conducted in California showed that, most significant reason to early weaning of infant is due to mothers has to return to work, even though the 1993, federal Family and Medical Leave Act (FMLA) entitles eligible workers to up to 12

weeks of job-protected leave which can be used for maternity leave, but many who need the leave do not take it (20, 21, 22)

Crossectional study conducted on 444 employed mothers with children less than 2 years in Kenya showed that, most commonly reason (54.53%) was not enough milk, 27.65% of the mothers claimed return to work, and 16% were advised by health professionals to introduce other food before six months of age and infants age at one and two months, the type of work (fixed working hours as opposed to shift work) was found to be associated with EBF. According to the research done on EBF in tigray and Gondar, Perceived lack of breast milk was a major factor for offering complementary foods before six months. More than 25% of infants in Gondar and Tigray regions were EBF up to the eighth month and 16.4% and 15.7% of infants in Tigray and Gonder were breast feed at the end of the first year and EBF prevalence was 52.2% and 61.5% of mothers in Tigray and Gonder respectively (26, 40).

Regarding Maternal Health care utilization Mothers who had no antenatal visits during pregnancy had lower odds for EBF than those mothers who had 1 to 3 antenatal clinic visits, and 4 or more antenatal clinic visits and Infants from the poorest households were less likely to be EBF compared to infants from middle-level and wealthiest households. Regarding breast feeding education /counseling, study in 400 Bolivian mothers with infants 0-12 months, counseling during pregnancy is strongly associated with EBF. Better knowledge about specific breastfeeding issues was positively associated with the duration of both exclusive and predominant breastfeeding (42), paternal education and support has contribution of 71% optimal infant feeding practice (43) ,higher maternal occupation has significant association($p<0.05$) with exclusive breast feeding among the Nigerian breast feeding mothers(44).

In summary employed mothers either part time or full time, are factors of cause of interrupting exclusively breast feed in US and Australia; this study will assess the infant feeding practice and factors associated with the employed mothers at many levels of position in the governmental institution of the study area.

In Ethiopia Rural children are more likely than urban children to start breastfeeding within one hour and within one day of birth. Highly educated mothers are less likely than those with little or no education to put their newborn to the breast within the first hour or day of birth and breast feed their children for shorter duration than little or no education (31). Differences in early breastfeeding by wealth are small, Early initiation of breastfeeding is more common among children whose mothers were assisted at delivery by a trained traditional birth attendant and among children delivered at home (31). A crossectional research conducted on 801 households in Jimma showed ,socio-economic and cultural factors like Ethnic group, poor maternal knowledge, age, parity, and ANC service utilization and economic status were significantly ($P < 0.05$) related with initial child feeding practice(6).

In this study, the employment related factors with infant feeding practice especially exclusive breast feeding, appropriate complementary feeding time and the magnitude of the problem in employed women in Ethiopia is not well known; hence this study will fill the gap in the study area

1.3 Justification of the study

In recent years there has been a rise in the participation rate of women in employment, education, leadership and political involvement. Some may become pregnant while in employment and subsequently deliver their babies. Most may decide to return early to work after giving birth for various reasons. Unless these mothers get support from their employers and fellow employees, they might give up breastfeeding when they return to work.

As a result, complementary feeding introduction and exclusivity of breastfeeding to the recommended age of the babies would be affected which leads to malnutrition complement with respiratory infection and Diarrheal disease (5, 31) and Employment related factors in relation to infant feeding practice among the employed mothers are not studied yet and lack of data on exclusive breastfeeding and factors associated with exclusive breastfeeding, making it difficult to identify areas that require intervention.

. Hence this study will help to picture the problem of infant feeding practice among formally employed women which have not been studied and assist the government to design intervention. It will also give base line information for the concerned body.

2. Objective

2.1. General objective

To Assess infant feeding practices and associated factors among the employed women in Gondar city .

2.2. Specific objective

- To determine the prevalence of exclusive breast feeding practice.
- To describe complementary feeding practice.
- To identify factors affecting exclusive breast feeding practice among employed mothers

3. Methods

3.1. Study design: Institutional based cross-sectional study was conducted to collect data from the study population from June 1, July30, 2011

3.2. Study setting: The study was done in Gondar city specifically at the government institutions. Gondar city is one of the ancient cities 750Km apart from Addis Ababa in North West Ethiopia. Currently for administrative purpose the city is divided in to 22 areas administrative which are equivalent to the sub city. According to the city civil service office there are around 14 major government institutions under the civil service office. There are about 3,000 employed female civil servants were employed in this government organization like the city administration health office, the city administration educational office, the city municipality and mayor's office, the city administration of agricultural office ,the city finance and economic development etc

3.3. Source Population: the source population were all government employed women who has children up to 12 months in Gondar city

3.4. Study population: The study populations were employed women from the selected government institutions and have infants up to 12 months who were included by simple random sampling technique in the study period.

Inclusion criteria: mothers with children less than or equal to 12 months.

Exclusion criteria: mothers who are not at work place during data collection period in two visits.

3.5. Sample size Determination:

Sample size is calculated by using single population proportion sample size calculation formula with a source population of size less than 10,000 and there is no previous study done on infant feeding practice in government employee mothers, assuming 50% proportion and calculated as follows **.**

$$n = (\mathbf{Z\ \alpha\ /_2})^2 P(1-P)/d^2$$

$$(1.96)^2 .5(1-.5)/(.05)^2$$

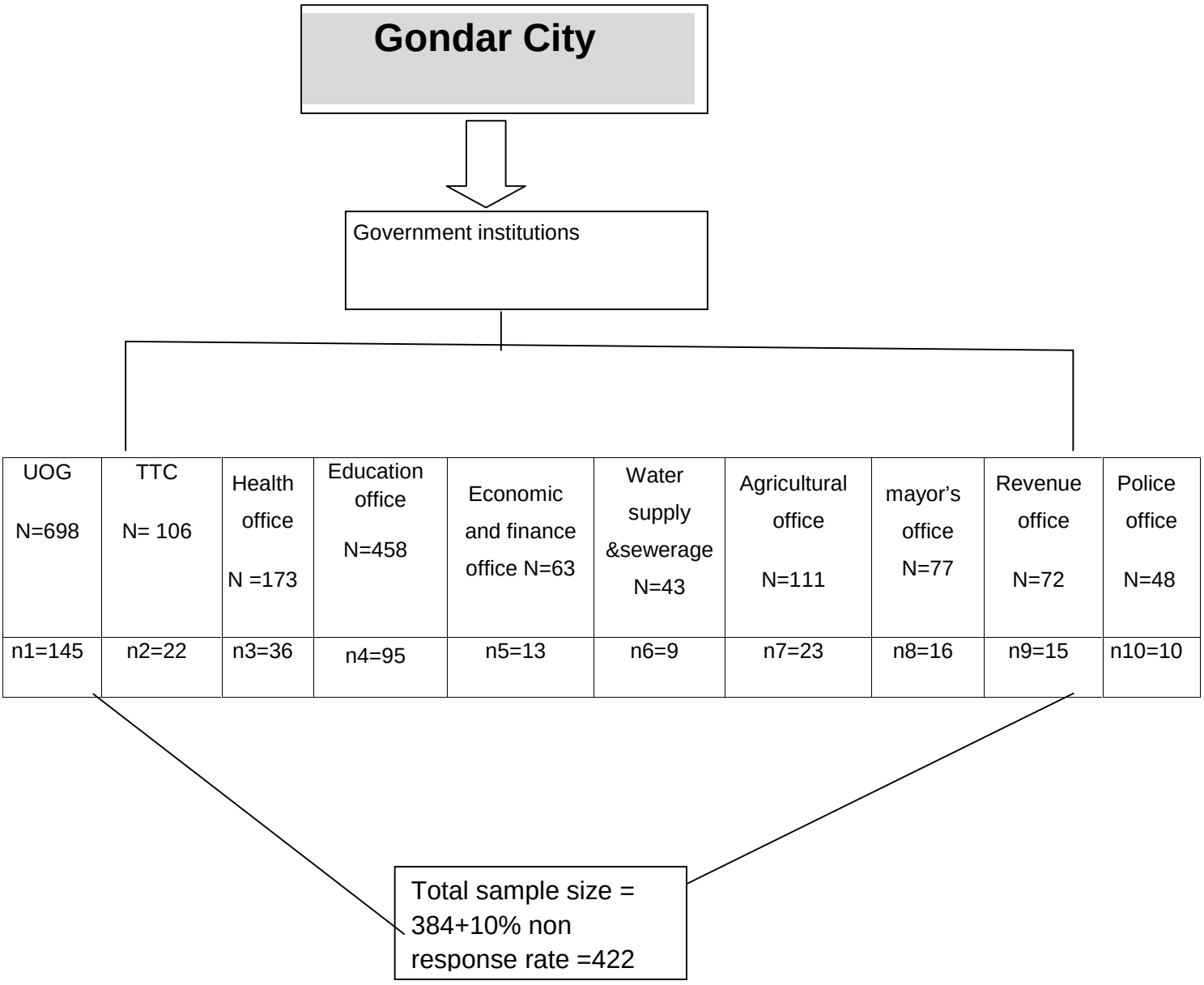
Where $Z\ \alpha\ /_2$ = Critical value for normal distribution at 95 % confidence interval which equals to 1.96(Z value at alpha= 0.05) and P is prevalence of exclusive breast feeding which is not studied in employed women .

The final sample included for this study were 422 subjects; the maximum sample size calculated from prevalence of exclusive breast feeding which was 384 and plus 10% non response rate.

3.6. Sampling Procedure: According to the city civil service office profile, in the city, there are 14 major government institutions in which around 3,000 employed women are working .Ten government institutions in Gondar city were included in the survey, But four institutions are excluded from the survey because of few number of women employed . According to the initial survey carried out before starting this study in February 2011 breast feeding mothers were around 1850 in the selected institutions.

Proportionate Stratified sampling technique was employed to determine the number of subjects in each governmental institution, assuming the mothers working in different government institution has **not similar knowledge** about infant feeding practice and the institutions are considered as strata for making homogeneity and finally the participants were selected by simple random sampling technique.

Fig .1: schematic presentation of sampling procedures.



3.7. Study Variables:

Dependent Variables:

- Exclusive breast feeding.

Independent variables:

Socio-demographic variables like maternal age, Parity, education, marital status, monthly income, husband education

- Utilization of maternal health services ,Health education on breast feeding
- Type of work, Time of returning to work, Shift work, Time away from baby per day,

3.8. Data collection Procedure

Data collection instruments: The data collection instruments were pretested structured questionnaire, which was adopted from Ethiopian demographic and health survey 2005 and previous similar study conducted in China (29, 37). It contains socio-demographic background, infant feeding practice and factors affecting the feeding practice questions and originally prepared in English translated to Amharic.

The questionnaires were administered by trained data collectors in the work place of selected institutions during working hours, the data collectors were trained high school Female graduates and a total of 7 data collector were employed.

The questionnaires were pre-tested on 21 mothers infant paired subjects having children age from birth to 12 months, in the institutions which are not included in the sampling, before the initiation of the main study.

3.9. Data Processing and Analysis:

The collected data are cleaned for consistency, checked for completeness, coded, entered, and compiled using EPI Info 2002 and SPSS version 16 used for analysis. Descriptive statistics is computed to determine the prevalence of exclusive breast feeding and multivariate analysis was computed among all age groups included in sample using the definition of dietary recall method since birth to identify the predictor variables of exclusive breast feeding. First biviraite logistic regression is performed then Variables that showed significant association with exclusive breast feeding which has PV up to 0.2 in the biviraite model were entered in to multivariate logistic regression model with exclusive breast feeding. Ninety five percent confidence and odds ratio is computed finally the predictors of EBF were identified.

3.10. Operational Definitions

Exclusive breast feeding: Refers to children less than six months old who are fed breast milk alone (no other liquids) except medicines, ORS, vitamins and minerals .This is the current status indicator based on 24 hours dietary recall for the infants less than six months or **dietary recall method since birth for all children up to 12 months** .

Early initiation of breastfeeding: Proportion of children born in the last 12 months who were put to the breast within one hour of birth (31).

Employed women: These are employed women either permanently or contract based working in the governmental institution by earning monthly salary.

Children ever breastfed: children born in the last 12 months who were ever breastfed

Complementary Feeding: infants 6–8 months of age who receive solid, semi-solid or soft foods.

Sufficient knowledge on benefit of breastfeeding: When the respondents identified correctly at least three out of 6 statements about the benefits of breastfeeding.

4. Ethical Considerations

Ethical clearance was obtained from the Institutional Review Board of School of Public Health, College of Medicine and Health Science, University of Gondar and from the selected organizations where the study was conducted. All mothers with children up to 12 months participate in the study were asked for their willingness to participated in the study, the right to withdraw at any time during the interview, All the reasons why mothers are chosen and why the research is to be done were explained to the study subjects, confidentiality of the information also explained and verbal consent is assured for all participants.

5. Results

5.1. Socio-demographic Characteristics of the Respondents

Out of 422 government employed mothers-infant pairs sampled, 403 are included in the analysis making response rate of 95.4% .Among the total respondents more than half, 277(68.7%) were from the university of Gondar and educational office and the rest 126(31.3%) are from other governmental institutions. The mean age of the mothers was 27.68 years (SD ± 4.8). The mean age of the infants was 6 months (SD ± 3.15). Male Infants were 223(55.3 %) and female children were 180 (44.7%).Among all mothers, 155(38.5 %) are completed primary and secondary school, 248 (61.5%) diploma and above graduates. Majority of the mothers were married, 347 (86.1%), Christian by religion 374(92.8 %) and Amahra by ethnicity 366 (90.8 %).

Regarding the household income of the respondents, salary of the employed mothers in ten institutions of the government organization, the median monthly salary of the mothers were 1,172 Ethiopian birr with IQR of 686. Regarding employment status of the mothers, Majority 325(80.6%) are permanently employed. Two hundred eighteen (54.1%) and 185(45.9%) of the mothers were working in fixed and shift work respectively. Regarding the total time the mothers away from their infants, more than half 211(52.4%) for 8-12 hours, 158(39.2%) for about 4-6 hours are away from their infants in a day. Two hundred fifty nine (64.5%) are professionals and 109(27%) were supportive staffs in the institution (Table1).

Table 1: Distribution of socio demographic characteristics of study participant of government employed mothers (n=403) with infants, Gondar city, North Gondar zone, June, 2011.

Variable	Number	Percent
Mothers working Institution		
University of Gondar	154	38.2
Agriculture	25	6.2
Education and Teachers teaching college	123	30.5
Finance & economy and Revenue office	22	5.4
Mayor's office	20	5.0
Police &security office	11	2.8
Health office ad water supply	48	11.9
Age of mothers(Years)		
20-24	92	22.8
25-29	206	51.1
30-34	67	16.6
35+	38	9.5
Infant age (months)		
0-2	45	11.2
3-5	160	39.7
6-8	102	25.3
≥9	96	23.8
Sex of infants		
Male	223	55.3
Female	180	44.7
Marital status		
Married	347	86.1
Single	40	9.9
Divorced and widowed	16	3.9
Ethnicity		
Amhara	366	90.8
Tigre	37	9.2
Maternal Educational status		
Primary and secondary school completed	155	38.5
Diploma graduate	181	44.9
Degree and above	67	16.6
Religion		
Christian	374	92.8
Muslim	29	7.2
Household Income		
200-884	101	25.1
885-1172	103	25.6
1173-1570	99	24.6
1171-4605	100	24.8
Employment status		
Permanent	325	80.6
Contract	78	19.4
Institutional position of mothers		
Managerial position	35	8.7
Professional	259	64.3
Supportive	109	27

5.2. Maternal Health and other Related Services Utilization

In this study, Majority of the respondents 394(97.8%) have visited Health institutions during their pregnancy for ANC follow up, the mean frequency of ANC visit were 4.2(SD ± 1.7) and more than half of the mothers, 268(66.5%) have visited postnatal clinic after delivery of their youngest children. Regarding place of delivery of respondents, 278(69%) have delivered their youngest child in governmental Hospital, 60(14.9%) delivered in the government health centers, 52(12.9%) and 13(3.2%) have delivered at the private clinic and home respectively. Concerning the delivery assistance for the respondents, majority of the mothers, 347(86.1%) were assisted by the health professionals during delivery and 56(13.9%) of the respondents have been assisted by the traditional birth attendants and trained birth attendants in the community. Regarding the knowledge of mothers on breast feeding practice, 327(81.1%) have sufficient knowledge and 76(18.9%)of the mothers have no sufficient knowledge on breast feeding practice .Among all participant mothers, 303(75.2%) got health education on breast feeding during pregnancy of their youngest child or after delivery of their youngest child(Table2).

Table 2: Distribution of mothers by utilization of Maternal health and other related services, Gondar city, North Gondar zone, June, 2011 (n=403)

Variable	Number	Percent
ANC follow up		
Yes	394	97.8
No	9	2.2
PNC follow up		
Yes	268	66.5
No	135	35.5
Place of Delivery		
Hospital	278	69
Health center	60	14.9
Private clinic	52	12.9
Home	13	3.2
Delivery Assistances		
Health professionals	347	86.1
TTBA and TBA	56	13.9
Parity of mothers		
Premiparous	208	51.6
Multiparous	195	48.4
Knowledge on breast feeding practice		
Satisfactory	327	81.1
Unsatisfactory	76	18.9
Breast feeding education		
Yes	303	75.2
No	100	14.8

5.3. Infant feeding Practice

5.3.1. Exclusive Breast Feeding experiences

Majority of the children 402(99.8) had ever breast feed at some point in the past .About 273(67.2%) of the mothers less than one year of age put their newborns to their breast within one hour of birth ,and 105(32.8%) respondents initiated breast feeding later after one hours (table-3).Out of the total respondent mothers who have less than 12 months infant 315(78.2%) had fed colostrums , 63(22.8) mothers squeezed and discarded the colostrum before breast fed. Regarding pre-lacteal food, 61(61.6%) children feed water and sugar solution, 36(36.4%) feed formula and cow milk followed by 2(2%) butter before they put their children to breast. At the time of survey 324(80.2) mothers were breast feeding their children and only 79(19.8) of the mothers stopped breast feeding their children. The reason given for cession of breast feeding were return to work 57(72.2%), no enough milk 19(24%) and breast engorgement 3(3.8%). When we disaggregated 79 infants and cession of breast feeding, 6(8%) are in the age group between 0-2 months, 16(20%) are between 3-5 months, 27(34%) are between 6-8 months, 30(38%) are between 9-12 months of age.

Among 297 breast feeding mothers, 256(86.5%) had frequency of breast fed less than or equal to 8 times, 41(13.8%) of the mothers breast fed eight times or more in the previous day before this survey .When we disaggregated 279 children based on frequency of breast feeding more than 8 times, 5(11.6%) are between 0-2 months, 19(14.2%) are between 3-5 months and 4(5.7%) are between 6-8 months of age. Regarding methods of giving fluids and foods , 308 children of age birth -12 months ,only 85(27.6%) were bottle fed 24 hours before the survey day and night , 223(72.4%) were fed using spoon and cup. Among 289 infants of age less than six months 66(22.8%) used bottle feeding in the last one day before the survey of day and night.

The mean duration of exclusive breast fed is 3.93(SD±1.67) months and computed using two methods of assessment; the first one is using the 24 hour recall or previous day recall method which is infants 0-5 month of age who are fed exclusively on breast milk in the last 24 hours. According to this criteria out of 289 employed mothers with infants of age less than 6 months 140(48.4%) were exclusively breast feeding ,104(14%) of

the infants were given a combination breast milk and plain water,38(6.7%) of the infants also given breast milk and formula milk in combination, 114(20.2%) of the infants were given a combination of breast and cow milk and the rest infants 60(10.7%) given other form of liquid and solid food. When the Exclusive breast feeding level is disaggregated according the WHO exclusive breast feeding age group classification it is found to be 97 % for age group 0-1 months, 68.6 % for age group 2-3 months, 48.7 % for age group 4-5 months(See figure 2). When we disaggregated 289 infants less than six month age ,who were exclusively breast fed into the ten government institutions using recall method in 24 hours , the majority ,52(37.1%) where from the university of Gondar ,29(20.7%) were from educational office ,13(9.3%) were from the teachers teaching college , the rest are from other governmental organization.

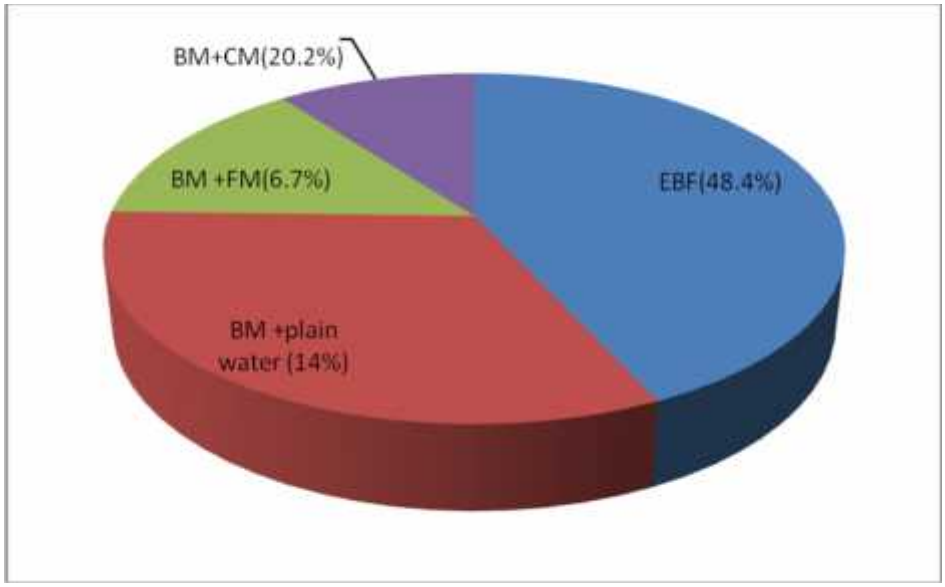


Figure2: Infant feeding practice less than six months of age based on 24 hours recall methods in Government institutions of Gondar city, June, 2011

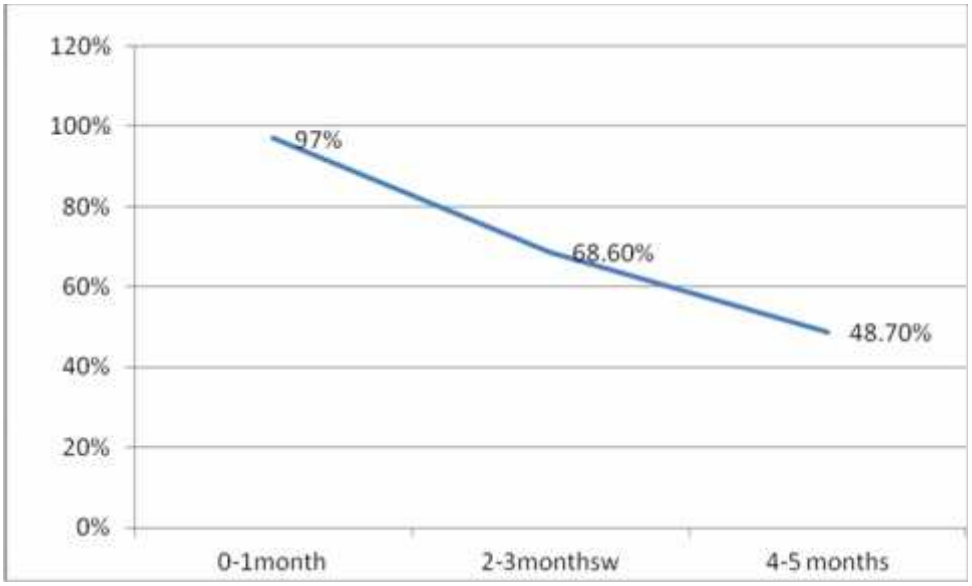


Figure 3: Trends of exclusive breast feeding practice in infants less than six months of age using 24 hours dietary recall method in government employed mothers in Gondar city, north Gondar zone June, 2011.

The other method used for computing Exclusive breast feeding was asking mothers having children less than six months whether they were feeding breast milk only or not since birth. Based on this assessment among 289 mothers of under six age of infant 125 (43.3%) were exclusively breast fed. When this figure is further disaggregated in different age group, the exclusive breast feeding level is found to be100 % for age group 0-1 months, 74.5 % for age group 2-3 months, 48.5 % for age group 4-5 months.(figure 5 & 6).The other infants who are under six months of age and are not exclusively breast fed are found to be 77(47.4%) were given water and sugar solution 52(32.2%) were given breast milk and cow milk in combination ,16(10.1%) were also given breast milk and formula milk and 17(10.3%) were given breast milk and other semisolid and solid foods(Figure 4).

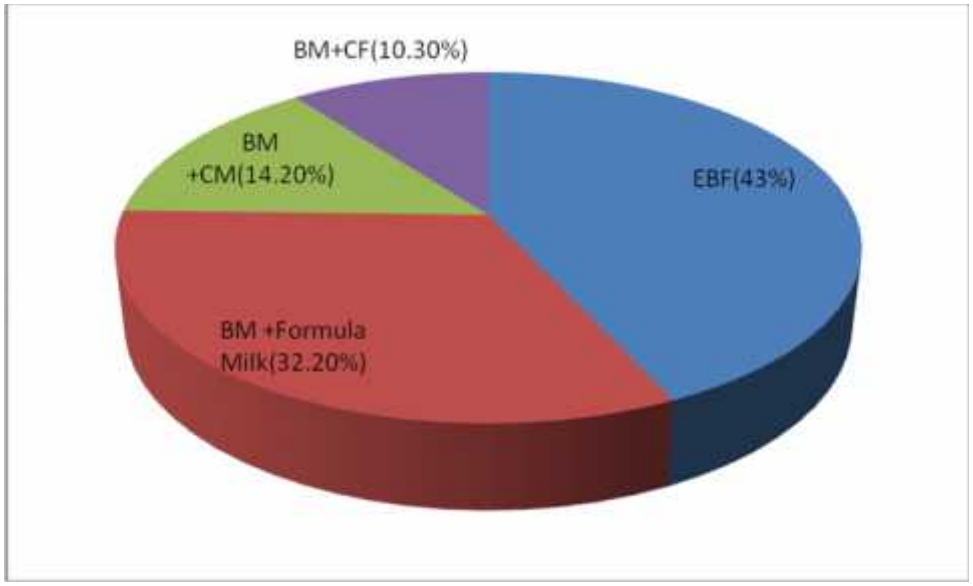


Figure 4: infant feeding practice of age less than 6 months using dietary recall method since birth in Government employed mothers of Gondar city, June, 2011

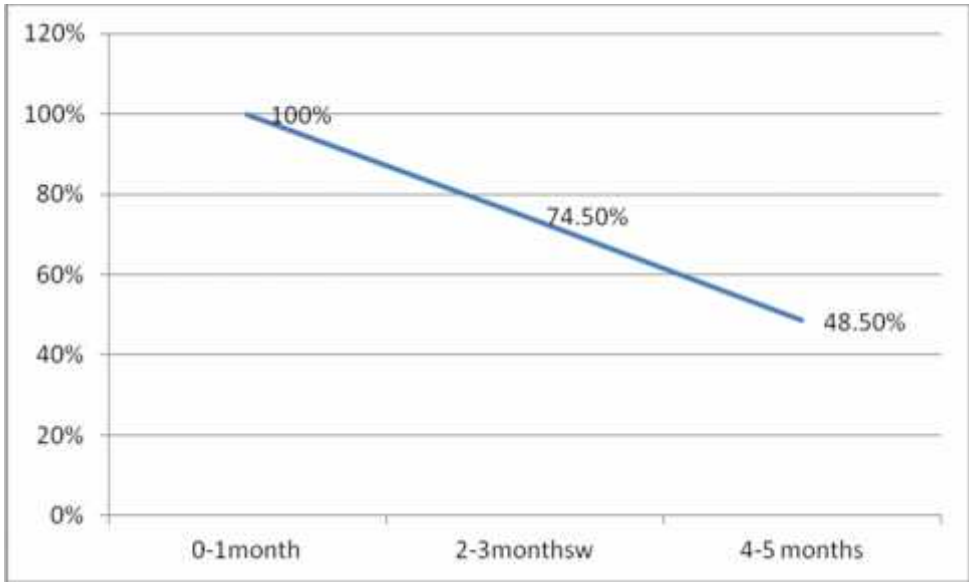


Figure 5: **Trends exclusive breast Feeding in infants age less than 6 months using dietary recall method since birth in Government employed mothers of Gondar city, June, 2011**.

Regarding working institution of the mothers and exclusive breast feeding using dietary recall method since birth, the distribution of exclusive breast feeding in to ten governmental institution in Gondar city, it was found that 45(15.6%) where from the university of Gondar, 27(9.3%) were from educational office, 10(3.5%) were from the agricultural office and the rest were from other organization.

Table 3: Distribution of Mothers by their breast feeding practices in employed mothers , Gondar city, North Gondar Zone, June2011.

Variable	Number	Percent
Ever breast fed (N=403)		
Yes	402	99.8
No	1	0 .2
Initiation of breast fed(403)		
Within one hour	271	67.2
After one hour	132	32.8
Colostrum feeding(403)		
Yes	315	78.2
No	88	21.8
Pre-lacteal feeding(403)		
Yes	99	24.6
No	304	75.4
Exclusive breast feeding by 24 hrs recall methods (289)		
Yes	140	48.4
No	149	51.6
Exclusive breast feeding by history(298)		
Yes	125	43.3
No	164	56.7
Complementary feeding in infants ≥6months (198)		
Before 6 months	73	36.9
At 6 months	112	56.6
After 6 months	13	6.5
Currently breast feeding (403)		
Yes	344	85.4
No	59	14.6
Frequency of breast feeding (297)		
<8times	256	86.2
≥8times	41	13.8
Methods of giving fluids and /foods(308)		
Bottle	85	27.6
Spoon and cup	223	72.4
Health education on Breast feeding(403)		
Yes	303	75.2
No	100	24.8

5.3.2. Complementary Feeding practice

Among 198 children of age 6-12 months, 73(36.9%) are introduced before six months, 112(56.6%) of the infants introduced at six months, and 13(6.5%) of the infants started complementary food after six months of age. The mean age of introduction of complementary feeding was 5.2 (SD±1.35) months and Feeding practice was assessed using 24 hours recall method for 102 infants aged 6-8 months of children, 36(35.5%) were exclusively breast fed and 66(64.5%) infants received solid food in addition to breast milk.

5.3.4. **Factors Associated with exclusive breast feeding**

Exclusive breast feeding is computed among all age groups of 403 infants using the definition of dietary recall method since birth. Based on this more than half 208(51.6%) are not exclusively breast feed and in the regression analysis, biviraite analysis was computed for all variables and then all the independent variable with P-value less than 0.2 were entered to the back ward stepwise logestistics regression model. Breast feeding counseling or advice, employment status, age of infants and paternal education are remain significant with exclusive breast feeding, where as shift and fixed work, permanent and contract work, duration of maternity leave and total time the mother away from infants were significantly associated in the bivariate logistic regression model but turned out insignificant in the back ward stepwise regression (Table4). Those who had health education or advise during pregnancy about breast feeding practiced 1.5 times exclusively breast fed as compared to those who didn't get health education or advise about breast feeding (AOR=1.538(0.92, 2.57) in dietary recall method since birth. Infants who are in the age group of 0-2 months were 3.5 times more likely to feed exclusively as compared to the age of 9 and above months of infants (AOR=3.485(1.382,8.78).Regarding the educational back ground of husbands ,those mothers who have paternal education of diploma and above practiced exclusive breast feed of their youngest children 1.5 more likely as compared to those employed mothers who have paternal education of secondary school(AOR=1.507(0.854,2.66).Concerning the employment status of mothers and exclusive breast feeding , mothers who are in

apposition of supportive staff practice exclusively breast feed 0.398 times less likely to feed exclusively as compared to the administrative staffs in the institution(Table4).

Table 4: Association of selected variables among Government employed mothers of children aged 0- 12 months with exclusive breast feeding practice using dietary recall method since birth ,Gondar city, 2011

Variables		Exclusive breast feeding		Crude OR(95%CI)	AOR (95% CI)
		Yes	No		
Age	20-24	50	42	1.323(.620,2.821**)**	
	25-29	96	110	.970(.485,1.939)	
	30-34	31	36	.957(.431,2.124)	
	≥35	18	20	1	
Maternal education	Secondary school	69	69	1	
	College diploma	59	46	.655(.425,1.008)	
	Degree and above	67	93	.773(.435,1.372)	
Employment	Contract	40	38	1.154(.704,1.893)	
	Permanent	155	170	1	
Paternal education	Secondary	69	69	1	**1**
	Diploma	59	46	1.283(.770,2.136)	1.507(.854.2.66)*
	Degree and above	67	93	.720(.456,1.139)	**.**815(.480,1.38)
Household income	200-884	55	46	1.104(.634,1.921)	
	885-1172	39	64	.563(.322,.984)	
	1173-1570	49	50	.905(.519,1.577)	
	1171-4605	52	48	1	
Sex of child	Male	101	122	.757(.511,1.123)	
	Female	94	86	1	
Place of delivery	Health facility	166	172	1.198(.703,2.043)	
	Home	29	36	1	
Delivery Assistance	H. professional	101	122	1.537(.864,2.7334)	
	TTBA &TBA	94	86	1	
Infant age	0-2 months	38	7	3.404(1.377,8.414)	3.485(1.382,8.78)***
	3-5 months	73	87	.526(.314,.881)	.507(.298,.86)
	6-8 months	25	77	.204(.111,.375)	.173(.092,.32)
	9+ months	59	37	1	**1**
Parity of mothers	Premiparous	107	101	1.288(.871,1.906)	
	Multiparous	88	107	1	
ANC follow up	Yes	192	202	1.901(.469,7.708)	
	No	3	6	1	
Number of ANC					
	1-3	41	59	.672(.425,1.063)	
	4+	154	149	1	
Knowledge on BF	Sufficient knowledge	117	115	1.461(.880,2.423)	
	Insufficient	23	34	1	
Counseling on BF	Yes	163	164	1.264(.803,1.992)	1.538(1.02,2.57)*
	No	45	31	1	1
Time away from child	4-6hrs	75	83	1	
	8-10hrs	108	103	1.16(.768,1.753)	
	≥12 Hrs	12	22	.604(.280,1.303)	

Figure 8 Continued: Association of selected variables among Government employed mothers of children aged 0- 12 months with exclusive breast feeding practice using dietary recall method since birth ,Gondar city, 2011

Variables		Exclusive breast feeding		Crude OR(95%CI)	AOR (95% CI)
Employment category	Supportive	17	28	.379(.173, .830)	.336(.141,.799)**
	Junior professional	92	101	.569(.321, 1.011)	.575(.307,1.079)
	Professional	46	54	.532(.282, 1.006)	.398(.196,.809)
	Administrative	40	25	1	1
Duration of maternity leave	One month	9	19	1.709(.617,4.734)	
	Two months	17	21	2.124(.934,4.828)	
	Three months	169	168	1	

Significant at PV*=0.001, PV**= 0.032, PV*=0.05, variables which are significant remain at the 12th step of backward stepwise regression. Other variables are significant in the bivariate analysis but insignificant by the multivariate analysis of back ward stepwise regression**

6. Discussion

The study attempted to determine the prevalence of exclusive breast feeding and associated factors, breast feeding and complementary feeding practice .The study revealed that 99.8 % of the study subjects ever breast fed at some point of time .This is higher than the finding of 2005 EDHS which is 96 % and Addis Ababa Yeka Sub-city which is 96.2% and comparable with the study done in Jimma (98.8 %) (29, 6), Uganda (99%) and Kenyan employed mothers which is exactly 99.8 %(3), this might be related to the fact that Breastfeeding is a traditional practice in every culture in Africa.

Early initiation of breast feeding is encouraged for number of reasons. Mothers benefit from early suckling because it stimulates breast milk production, additionally the first breast milk contains colostrum which is highly nutritious and has antibodies that protect the new born from diseases (29).In this study 67.2 % of mothers initiated breast feeding within one hour after birth. This result is relatively similar with 2005 EDHS finding which was 69.1 % for the whole country, and better than the study done in Goba woreda which was 52.4 %(7) and 62.2 % for Amahra Region (6). This might be the fact that the employed women are exposed to the benefit of early imitation of breast feeding information than the community population in Amhara and goba woreda.

Colostrum contains protective antibodies and is important for the new born by serving as the baby's first immunization (41).In this study 78.2 % of mothers having children up to 12 months age fed colostrum to their youngest child. This finding is better than the community assessment finding done by ESHE/LINKAGE in Oromia which was 71%, Amhara (50%), SNNPR (45%) (26) EDHS2005 (45.3%)(29) mothers were fed colostrum to their children. This might be due the employed mothers have better knowledge on colostrum feeding soon after delivery but the previous studies indicated no improvement in practice of colostrum feeding to the newborn and feeding practice of colostrum looks still low in all groups of the population.

Bottle feeding is discouraged at any age. It is usually associated with increased risk of illness especially diarrhea and malnutrition ,which could be due to hazardous in that bottle or the content can be contaminated and the baby gets inadequate supplements as result of over dilution (12). This study showed that only 27.6 % of children of age 0-12 months were bottle fed, which is comparable with the global prevalence of bottle feeding rate which is 31%(10) but higher than the EDHS report of 2005 (19%) and lower than the studies done in Addis Ababa Yeka Sub-city which is about 38 % and 63%(42) in ambo government employee mothers of children age 0-12 were bottle fed (25).this might be the employed mothers may have better knowledge on bottle feeding and the time gap of the research done .

Exclusive breast feeding for the first six months is identified as one of interventions to reduce infant morbidity and mortality in Africa (1). Exclusively breast fed children are at much lower risk of infection than infants who receive other foods. Offering foods to infants before six months reduces breast milk intake and interferes with full absorption of breast milk nutrients(1). In this study the prevalence of exclusive breast feeding is found to be low in both methods 24 recall and dietary recall since birth (48.4% and 43.3 %) respectively. This finding is relatively similar with the EDHS 2005 National average report which is 49 % but less than the study done in the community assessment finding by ESHE/LINKAGE in Amhara (81%), Oromia (62%) and SNNPR (64%)(28,41), in Tigre(52.2%) and Gondar(61.5%).This might be the employed mothers introduce complementary feeding too early because of return to work. As compared to the

employed women practice of exclusive breast fed , this finding is higher than the study done world prevalence(34.8%),in developing countries(39%) ,Africa(25%) of exclusively breast feed for the first 6 months. When we compared to the employed mothers, it is also higher than the prevalence of Malaysia (25.4%), Thailand (11%), Indonesia (21%), and Kenya (13.3%), Nigeria (16.4%) working mothers. This might be because of the higher socioeconomic status of mothers and cross cultural difference of breast feeding experience, however, exclusive breast feeding prevalence is still very low as compared to the WHO recommendation of exclusive breast feeding for six months. In this study the mean duration of exclusive breast feeding was 3.93 months which is less than the EDHS report of 4.3 months for the national population and srilanka nursing mothers (24) which was 4 months. This might be due the employed mothers have started complementary food before six months of infant age because of return to job and this is supported by many other researches (30,31,37).

World Health Organization recommends the introduction of solid food to infants around the age of 6 months because by that age breast milk by itself is no longer sufficient to maintain a child's optimal growth (29). In this study the appropriate prevalence of complementary feeding introduction was 56.6% at the age of 6 months, this finding is less than among Taiwan (76.5%) employed mothers. This might be due to implementation of supportive policies like breast feeding break, room for breast feeding in the institution of working time (20) and less than the EDHS report of 2005 which was 67%(29) which might be due to the employed mothers had started complementary food before 6 months due to return to work. This is supported by the prevalence of introduction of complementary feeding under six months was 36.9%. The appropriate introduction of complementary feeding prevalence finding is also better than the study done among the Kenyan employed mothers which was 46.4% which is evidenced by early introduction of complementary food before 2 months which was reasoned by return to work after delivery which supports this study. However this figure is still very low as compared to the optimal introduction of complementary feeding recommendation by WHO. In this study mean age of introduction of complementary feeding were 5.2 months which is better than the study done in Bangladesh and Mexico mean age of two months and Kenyan employed mothers of mean age of one month. This might be due to

the socio cultural and economic differences of employed women in different countries in which many researches indicated that high economic and educational back ground of the mother practiced early initiation of complementary feeding and short duration of exclusive breast feeding (8, 29, 44)

In the multiple backward stepwise regression analysis, breast feeding counseling or advice, employment status, age of infants and paternal education are remain significant with exclusive breast feeding (Table-8).Those who had health education or advise during pregnancy about breast feeding practiced exclusively breast fed 1.5 times more likely to feed exclusively as compared to those who didn't get health education or advise about breast feeding during pregnancy [(AOR=1.538(1.2, 2.57)]. This finding is consistence with study done in Tanzanian mothers which is PV=001(42), Bolivian employed mothers of counseling during pregnancy has strongly associated with exclusive breast feeding [(AOR=3.30, 95%CI)] (42).

Infant age highly associated exclusive breast feeding practice. In this finding as a case of facts infants who are in the age group of 0-2 months are 3.5 times more likely to feed exclusively as compared to the age of 6-8 months of infants [(AOR=3.485(1.382, 8.78)] and comparable with the study done in Ethiopia (PV<0.05), Nigeria which indicated that increased infant age was associated significantly less EBF [(AOR = 0.65, 95%CI: 0.51-0.82)] (6, 9). Regarding the educational back ground of husbands, those mothers who have paternal education of diploma and above practiced exclusive breast feed of their youngest children 1.5 more likely as compared to those employed mothers who have paternal education of primary and secondary school (AOR=1.507(.854.2.66).This finding is supported by many other researches of parental education has a significant association with exclusive breast feeding (8, 12).This might be explained by paternal support of breast feeding in educated fathers than those none educated paternal Family. Concerning the employment status of mothers and exclusive breast feeding, mothers who are in apposition of supportive staff practice exclusively breast feed 0.398 times less likely to feed exclusively as compared to the administrative staffs in the institution. This finding is similar with the study done in Nigerian employed mothers, which showed that the higher maternal occupation; being working in administrative or

managerial position was associated exclusive breast feeding (*P* <.05)(44), similarly this finding elucidate that the supportive staffs practice less likely than the managerial mothers .This might be the high occupational positioned mothers have good knowledge and right to experience feed exclusively during the break time and easier to take their infants to work place than the supportive staffs.

Permanent and contract work, duration of maternity leave and total time the mother away from infants were significantly associated with exclusive breast feeding among the employed mothers in the bivariate logistic regression model. Therefore employment related factors by the bivariate analysis showed that, mothers who are contract workers feed exclusively their youngest infant 1.2 times more likely as compared to those who were permanently employed mothers which are supported by many other researches (12, 21) where as mothers who were working more than 11 hours in day practice exclusively breast feed 0.6 times less likely as compared to the mothers who were working 4-6 hours in a day.

7. Strength of the Study

It is institutional based crossectional study included mothers with infants working in major government institutions in Gondar city with a response rate of 95.4 %.

Exclusive breast feeding was assessed using both methods of 24 hour recall and dietary recall method since birth. This could give better comparison of exclusive breast feeding in different methods

8. Limitation of the study

The study design is crossectional study design and done only in governmental employees, it is not included the private sector employee mothers for comparison.

The prevalence of exclusive breast feeding based on 24 hours recall method may over estimate the finding.

Only crossectional quantitative study was employed, it would be better to include qualitative components.

9. Conclusion

- Breast feeding practice was found to be common in the government employee mothers; however, significant proportions of children were not put on breast within one hour of delivery and didn't get the first milk.
- The overall prevalence of exclusive breast Feeding Practice is very low among Government employed
- The overall prevalence of appropriate time introduction of complementary feeding practice was also very low among this group of population.
- Mothers who had exposure to health education during their pregnancy ,being Supportive employees ,being young infant and better paternal education of the infants were found to be associated with exclusive breast feeding .

10. Recommendation

- Exclusive breast feeding practice has to be promoted in all government institutions by the ministry of health targeting the employed mothers and mainstreamed in all programs.
- Institutional and family supports are important for achievement of optimal breast feeding and should be promoted through IEC/IC strategies, breast feeding room with facilities in working organization.
- The employed mothers need to be empowered with information on the right time introduction of complementary feeding practices through IEC/IC strategies by the regional Health bureau and zonal Health office.
- Infant feeding practice education has to strengthen among ANC follow up mothers health care Facilities by the ministry health.

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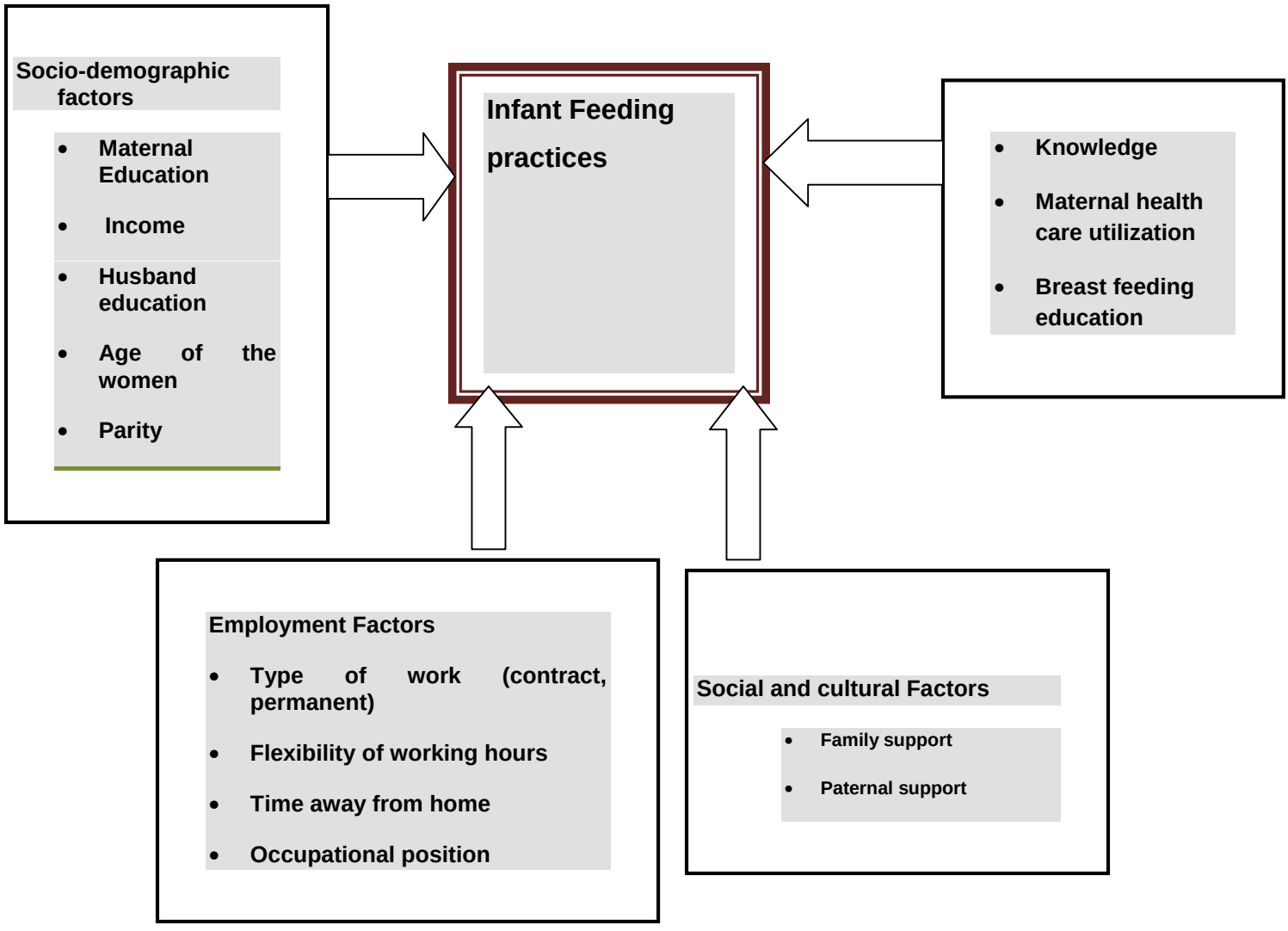
Conceptual Framework

12. Annexes

Annex –I: conceptual frame work



Amhara National Regional State, North Gondar Zone: Gondar city administration

Gondar city Administration Government employed lactating mothers

Questionnaire on infant feeding Practice For Mothers with children from 0-12 months , may,2011

Introduction and Consent Form

Dear Madam. Good Morning/ Good Afternoon.

My Name Is…….. This is study to be done by Tarekegn Asemaw in Partial Fulfillment of the Requirements for the Degree of Masters in Public Health at the University of Gondar, School Of Public Health.

The Purpose Of this Questionnaire is to Gather Information on Infant Feeding Practices and Associated Factors among Employed Women in Gondar city. The Research will be Beneficial to those Infants born from employed Mothers for Improvement of infant Feeding practice in the Study Area.

Your name will not be written in this Form and the Information Gathered will be used only For the Intended Purpose. Participation in this Assessment is Voluntary and You Can Choose not to Answer Any Individual Questions or All of the Questions. However, We Hope that You Will Participate Fully in this Assessment Since Your Views Are Important. Do You Have Any Questions About The Survey?

Verbal Consent **Given To the Interview Check in the Space by Putting X**

I Agree_____ I Don't Agree _____

	Questions	Response
001.	Questionnaire Code number	
002.	Name of the government institution	
003.	Interviewer Name	
004	Date of interview	DD/MM/YYYY/ _|_|/|_|_|/|_|_|_| _|
005.	Checked by supervisor:	Signature _____Date_____
006.	Checked by investigator:	signature _____ Date _____
007	Data entry clerk	Signature _____date _____
	Part I: Socio-Demographic Back ground Questions	
101	How old are you? age in complete year	Age_____
102.	To which ethnic group do you belong?	1. Amhara 2. Tigre 3. Oromo 4. Others _____
103	What is your religion?	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5. Others specify _____
104	What is your current marital Status?	1. Single 2. Married 3. Divorced 4. Widowed 5. Other (specify)……
105	What is your education level	1. secondary school completed 2. High school completed 3. College diploma 4. University degree 5. Advanced degree
106	What is your employment condition?	1. Contract 2. Permanent
107	What is your Spouse educational level	1. secondary school completed 2. High school completed 3. College diploma 4. University degree 5. Advanced degree
108	What is your Spouse Occupation	1. Government employee 2. Private employee 3. Merchant 4. Driver 5. Factory worker 6. Other specify ----------
109	What is your monthly salary in birr?	……
110	The number of family member in the House	Number ------

Q	Part II: Delivery and Infant back ground Questions	
201	What is your youngest child Name?	NAME _____
202	Sex of the youngest child ?	1. Male 2. Female
203	What is the age of your youngest child (Name)?	[____|___] Months
204	What is the birth order your youngest child in the family?	**[____|___]** th birth order
205	Place of Child (Name) birth?	1. Home 2. Hospital/Health center 3. Other……
206	Delivery type of the child (Name)?	1. Spontaneous/Normal 2. Cesarean section
206	Who assissted the delivery of your youngest child ?	1. Health professional 2. TTBA 3. TBA 4. Family or friends 5. HEW 6. No one helped 7. Others
207	When you were pregnant with the young children, did you go to a health facility for Antenatal care?	1. Yes 2. No
208	If your response is Yes ,how many times did you attend ?	Number_____
209	Following Delivery of young child, have you attended post natal clinic in any health facility?	1. Yes 2. No
	Part-III- Infant feeding Practices Questions	
201	Have you ever breast-fed your baby (name) after he/she was born?	1. yes 2. no(skip to Q223)
202	How long after birth did you first put (name) to the breast? If <1hr considered as immediately if<24hrs record hours otherwise record days	1. Immediately 2. Hours…… 3. Days…… 4. Don't Know……..
203	Did you breast fed your child or squeeze out and throw away the first milk (colostrums)?	1. Fed 2. Throw away 3. Don't know

204	If You didn't give the colostrums what did you then feed the child? a. Plain water b. Water & sugar c. Cow's Milk d. Formula Milk e. Butter f.Other (Specify) ----------99	Yes NO a. ……..1……2 b. ……1……2 c. ……..1……2 d. ……1……2 e. ……1……2 f……..99
205	Starting from the date of birth up to know, what do you feed your youngest child (Name) in addition to breast milk? **This question belongs only to a child less than 6 months of age** a. Only Breast milk b. Water/tea c. Sugar/salt solution d. Cow's milk e. Cereal based fluid f.Formula milk g. Adult food h. Other(Specify)_____99	Y N a.……1……2 b.……1……2 c.……..1……..…2 d.……..1……2 e.……1……..…2 f. ……1……..2 g.……1……..2 h.……99.
206	How many times did you breastfeed young child between sunrise yesterday and sunrise today? R**esponse is not numeric, probe for numeric response.**	No of 24 hours feeding **[**____**]**___**]**
207	Did you started to feed complementary food for Name?	1. Yes 2. No
208	At what age did you first introduce Complementary foods (semi-solid or solid) other than breast milk to the baby?(**age in months**)	**[**____**]**___**]** MONTHS
209	Why do you started complementary feeding for Name?	1. Right time to weaning 2. Return to work 3. Others (spesfy)……..
210	I would like to ask you about the types of foods [NAME] has been fed over the past 24 hours, from sunrise yesterday to sunrise today. Did [NAME] have: **Circle "1" for mentioned and "2" for not mentioned** a) Breast milk b) Water c) Formula d) cow milk e) Fruit Juice f) Other liquids (sugar water, coffee ,tea, broth, soft drinks g) Any food made from grains (millet (sorghum, maize, rice, wheat, teff) h. Any other fruits & Green leafy vegetables(e.g., bananas, tomatoes apples, avocados,) mango ,Papaya I. Meat J). Any food made from legumes or nuts (E.g. Peas, beans, lentils, peanuts)? K)Any food made with oil, fat or butter l) Boiled and smashed food m)Eggs	yes(1) No (2) A. 1……2 B.……1……2 C. 1……2 D. 1……2 E.……1……2 F.……1……2 G. 1……2 H. 1……2 I.……1……2 J.……1……2 K. 1……2 L.……1……2 M. 1……2 N. 1……2 O. 1……2

	n) Fish o) Cheese or yoghurt p. Other(Specify)	P.....99
211	How many times did you feed [NAME] solid and/or semi-solid food between sunrise yesterday and sunrise today? **If response is not numeric, probe for a numeric response**	Number of feedings of solids and/or semi-solid foods **[____|___]** Don't know……..…98
212	What did you use to feed (Name) mashed or fluid foods between sunrise yesterday and sunrise today?	1. Bottle nipple 2. Cup and Spoon 3. His own plate 4. Other (Specify) ……´
213	Are you still breast feed?	1. Yes (skip to Q221) 2. No
214	Why did you stop breast feeding for the child(Name) 1. Child refused 2. Weaning age/age to stop 3. Mother return to work 4. Mother got pregnant **5.** Child develops Tooth	6. Fear of loss of beauty 7. Mother sick/Weak 8. Child sick/Weak 9. Breast Nipple Problem 10. Not enough milk **11.** Other (Specify)……
215	For how many months did you feed your youngest child (Name) with breast **milk only**?	1. **1. [____|___]**days 2. **2. [____|___]**months
216	What was the age of your youngest child (Name) when you stopped breast feeding **If less than 1 hour or "immediately", record "00**	**1.** **[____|___]** days **2.** **[____|___]** months
217	What is your reason for never breast feed (Name)	**1.** Mother sick/weak1 **2.** Child sick/weak **3.** Return to work **4.** Breast disease **5.** Not having enough breast milk **6.** Other(Specify
218	Breast feeding prevents the child from infection and diarrheal disease	1. Yes 2. No 3. I don't Know
219	Early initiation of breast feeding is in the first one hour after birth	1. Yes 2. No 3. I don't know
220	Appropriate complementary feeding time should starts from 6months of child age	1. Yes 2. No 3. I don't know
221	Exclusive breast feeding should continues to 6 months of age	1. Yes 2. No 3. I don't know
222	On demand breast feeding should continues to 2 years of child age	1. Yes 2. No 3. I don't know
	Part –IV- Work Related Factors Questions	

401	In which government institution you are working?	1. Name of institution _____
402	What is your type of work in the organization?	**1.** Professional **2.** Office work **3.** Service work **4.** Laborer /unskilled
403	What is your employment status	1. Full timer 2. Part timer 3. contract 4. other……
404	What is the position you have in your organization?	1. Managerial 2. Technical worker , 3. Supportive 4. other _____
405	How many other workers are working at your working unit?	No of workers **[**____**|**___**]**
406	How many hours do you work per day?	Hours _____
407	Is there shift work in your institution?	1. Yes 2. No
408	If your answer is yes in which shift you are working?	1. only day shift 2. day and evening shift 3. night shift
409	How flexible are your working hours?	1. Regular 2. Flexible
410	Where do you usually work?	1. outdoors 2. indoors 3. Both
411	How do you travel to work?	1. walk 2. mini bus 3. other_____
412	How long to you usually spend to go to your working place?	1. _____minutes by foot 2. _____minutes by mini bus
413	What is the longest period of time that you must spend away from your baby?	_____hours
414	Do you have maternity leave from work which is permitted by a rule?	1. Yes 2. No
415	How many days did you actually take this maternity leave?	[____|___] days
416	How long after giving birth did you return to your job?	[____|___]days
417	Did you breast feed exclusively during your maternity leave?	1. Yes 2. No
418	If you say no for Q319, why didn't you feed	1. return to work

	exclusively at the early month's age?	2. Insufficient breast milk 3. Ill health
419	What was your initial feeding option?	1. Breast feeding 2. Formula milk 3. Cow milk 4. Other
420	Did you have partner, family, or others' support on infant feeding while you are in work place?	1. Yes 2. No
421	If you say Yes for Q322 Who will take care of your child (name) when you are at work?	1. Spouse 2. Father/mother 3. Servant /care taker 4. Others ……
422	Are you regularly visiting your home to feed the child	1. Yes 2. No
423	Does your job affect when you are able to breast-feed?	1. Yes 2. No
424	If you say yes for Q323 How much does your job affect when you are able to breast-feed?	1. No effect 2. makes it more difficult 3. makes it impossible
425	Are you able to take a break from work when you need to breast-feed your baby?	1. Yes 2. No
426	If you say Yes how many times you visit the Kids?	_____times

Thank you

Annex –III Amharic questionnaires

ይህ መጠይቅ የተዘጋጀው በሚያጠቡና የመንግስት ሰራተኛ የሆኑ እናቶች ላይ ሲሆን ስራና ከአንድ አመት በታች የሆኑ ህጻናትን አመጋገብ በተመለከተ ያላቸዉን ግንኙነት ና ጫና ለማወቅ የተዘጋጀ ጥናት ነዉ ::ጥናቱም በጎንደር ከተማ አስተዳደር ዉስጥ ባሉ የመንግስት ተቋማት ይካሄዳል::

በምርምሩ ለመሳተፍ የፈቃደኝነት ፎርም

መጠይቁ የተጀመረበት ሰዓት ---------- ያለቀበት ሰዓት----------

ስሜ ----------ይባላል:: በጎንደር ዩኒቨርሲቲ እና በህብረተሰብ ጤና አጠባበቅ የትምህርት ክፍል አማካኝነት ለሚካሄደው ምርምር መረጃ ሰብሳቢ ነኝ:: የዚህ መጠይቅ ዓላማ ሰራተኛእናቶች ህጻናትን ለመመገብ ከስራ ጋር ተያይዞ የሉትን እንቀፋቶች ለመለየት ጥያዎችን እጠይቀዎታለሁ:: ቃለ መጠይቁ ከ20 እስከ 30 ደቂቃ ይወስዳል:: በመጠይቁ ወቅት የሚሰጡት መልሶች እና አስተያየቶች በሙሉ በሚስጥር የተጠበቁ ይሆናሉ:: ይሁን እንጅ የሚሰጡት መልሶችና አስተያየቶች በሙሉ እውነት ያላቸው ቢሆኑ የችግሩን መጠን፤ እና መፍትሔዎችን ለመለየት ከፍተኛ ጥቅም ይኖረዋል:: በዚህ የጥናት ምርምር ላለመካፈል እና በመሀልም በማንኛውም ጊዜ የማቆም መብት አለዎት በጥናትና በምርምሩ በመሳተፈዎት በጣም እናመሰግናለን::

ጥያቄ አለዎት? በዚህ ጥናትና ምርምርመ ለመሳተፍ ፈቃደኛ ነዎት? ተሳታፊው መስማማታቸውን ገልጸዋል

ይህ መጠየቅ የህጻናትን አመጋገብ/ጡት ማጥባት ልምድ እና ተያያዥነት ያላቸዉን ጉዳዮች ህጻናት ባላቸዉ የመንግስት ሰራተኛ እናቶቸ ላይ ያለዉን ነባራዊ ሁኔታ አንዲሁም የችግሩን ስፋት ለማጥናት ነዉ። ጥናቱም በጎንደር ከተማ አስተዳደር ውስጥ ባሉ ዋና ዋና የመንግስት ተቋማት ይካሄዳል።

እርሰዎ ጊዜዎን ስዉተዉ በዚህ ጥናት በመሳተፈዎ በቅድሚያ እናመሰግናለን፡፡

ምርጫ ላላቸዉ ጥያቄዎች መልስዎን ያክብቡ ፣ ክፍት ቦታ ላላቸዉ ጥያቄዎች ደግሞ መልስዎን በክፍት ቦታዉ ላይ ይሙሉ፡፡

001	የመጠየቁ መለያ ቁጥር.....	የተቋሙ ስም.....	
	፩. ክፍል ፩ - **መሰረታዊ የማህበራዊና ኢኮኖሚያዊ ጉዳዮች መጠየቅ**		
101	እድሜዎት ስንት ነዉ?	.....አመት	
102	ብሄርዎት ምንድን ነዉ?	1. አማራ 2. ትግሬ 3. ኦሮሞ 4. ሌላ ካለ ይጠቀስ	
103	አሁን የሚከተሉት ሃይማኖት ምንድን ነዉ?	1. ኦርቶዶክስ 2. ካቶሊክ 3. እስልምና 4. ፕሮቴስታንት 5. ሌላ ካለ ይጠቀስ.....	
104	በአሁኑ ወቅት ያለዎት የጋብቻ ሁኔታ እንዴት ነዉ?	1. ያገባች 2. ያላገባች 3. የፈታች 4. ባሏ የሞተባት 5. ሌላ ካለ ይጠቀስ.....	
105	የትምህርት ደረጃ	1. አንደኛደረጃ ያጠናቀቁ 2. ሁለተኛ ደረጃ ያጠናቀቁ 3. ኮሌጅ ዲፕሎማ 4. የዩንቨርስቲ ዲግሪ 5. ሁለተኛ ዲግሪና ከዚያ በላይ	
106	በመስሪያ ቤተዎት ዉስጥ ያለዎት የቅጥር ሁኔታ ?	1. ኮንትራት ሰራተኛ 2. ቋሚ ሰራተኛ	
107	የወር ደመዎዝዎት ስንት ነዉ ?	.....ብር	
108	የባለቤትዎት የትምህርት ደረጃ እንዴት ነዉ?	ነአንደኛደረጃ ያጠናቀቁ 2. ሁለተኛ ደረጃ ያጠናቀቁ 3. ኮሌጅ ዲፕሎማ 4. የዩንቨርስቲ ዲግሪ 5. ሁለተኛ ዲግሪና ከዚያ በላይ	
109	የባለቤትዎት የስራ ሁኔታ	1. የመንግስት ሰራተኛ 2. የግል ሰራ 3. ነጋዴ 4. ሹፌር 5. የፋብሪካ ሰራተኛ 6. ሌላ ካለ ይገለፅ---------	
110	የቤተሰብ አባላት ብዛት	ብዛት በቁጥር.....	

	ክፍል ፪ ፡ የወሊድ እና ህጻናት መሰረታዊ መረጃዎች		
201	አሁን የወለዱት ልጅዎ **ጾታ** ምንድን ነዉ ?	1. **ወንድ** 2. **ሴት**	
202	አሁን የወለዱት ልጅዎ እድሜ ስንት ወር ነዉ?	..... ወር	
203	አሁን የወለዱት ልጅ ስንተኛ ልጅዎ ነዉ?	.....ኛ	
204	አሁን የወለዱትን ልጅዎን የት ቦታ ወለዱት ?	**1. ሆስፒታል** **2. ጤና ጣቢያ** **3. ቤት ዉስጥ** **4. የግል ክሊኒክ** **5. ሌላ** ካለ ይገለጽ	
205	አሁን የወለዱት ልጅዎ የወሊድ **ሁኔታ**	**1. በኦፕሬሽን/በቀዶጥገና** **2. በማህጸን**	
206	አሁን የወለዱትን ልጅዎን ያዋለደዎት ሰዉ ማነዉ ?	1. **የጤና ባለሙያ** 2. **የሰለጠነች የልምድ አዋላጅ** 3. **ያልሰለጠነች የልምድ አዋላጅ** 4. **ዘመድ/ጓደኛ** **5. የጤና ኤክስቴንሽን ሰራተኛ** 6. **ማንም አልረዳኝም** 7. **ሌላ (ይገለጽ)**	
	ልጅዎን ከመዉለደዎ በፊት ቅደመ ወሊድ የጤና ምርመራ በማንኛዉም የጤና ድርጅት ክትትል አድርገዉ ያዉቃሉ?	**1. አዎ** **2.** አላዉቅም	
208	መልሰዎ አዎ ከሆነ ሰንት ጊዜ ተከታትለዉ ያዉቃሉ?	.....ጊዜ	
209	ልጅዎን ከወለዱ በኋላ ድህረ ወሊድ የጤና ምረመራ በማንኛዉም የጤና ድርጅ ክትትል አደርገዉ ያዉቃሉ?	ነ.አዎን 2. አላደረኩም	
	ክፍል ፫- የህጸናት አመጋገብ ና ጡት ማጥባትን ልምድ የሚዳስስ መጠየቅ		

301	አሁን የወለዱትን ልጅዎን ጡት አጥብተዉ ያዉቃሉ ?	1. አዎን 2. **የለም** ካሉ **ወደ ጥያቄ** ቁጥር 317 **ይለፉ**	
302	ልጅዎ ከተወለደ ከምን ያህል ጊዜ በኃላ ነበር ለመጀመሪያ ጊዜ ጡት የሰጡት?	1. ወዲያዉኑ 2. **ከ**..... .....**ስዓት በኋላ** 3. **ከ**.....**ቀን በኋላ** 4. **አላስታዉስም**	
303	የመጀመሪያዉን የጡትዎ ወተት(እንገር) ምን አደረጉት?	1. **አጥብቸዋለሁ** 2. **አልቤ አፍሰሸዋለሁ** 3. **አላስታዉስም**	
304	እንገር ካልሰጡ ልጅዎን የመገቡት ሌላ ነገር ምንድን ነዉ ?	**1.** ውሀ ብቻ **2.** ውሀና ስኳር **3.** የላም ወተት **4.** የቆርቆሮ ወተት 5. ቅቤ 6.ሌላ ካለ ይጠቀስ.....	
305	ልጅዎ **ከተወለደ እስከ ዛሬ ድረስ ከጡት ወተት በተጨማሪ ሌላ ነገር ምን ሰጥተውት ያውቃሉ? ይህን ጥያቄ ልጅዎ ከ6 ወር በታች ከሆነ ብቻ ይመልሱ**	**1.** የእናት ጡት ብቻ **2.** ውሀ/ሻይ **3.** የውሀ ስኳር/ ጨው ፈሳሽ **4.** የላም ወተት **5.** የአጥሚት አህል **6.** የቆርቆሮ ወተት **7.** የአዋቂ ምግብ **8.** ሌላ (ይጠቀስ)_____	
306	ከትላንትና ንጋት እስከ ዛሬ ንጋት ምን ያህል ጊዜ ልጅዎን አጥብተዋል?	1. .....ጊዜ 2. አላስታዉስም	
307	አሁን የወለዱት ልጅዎ ተጨማሪ ምግብ ጀምሯል?	**1.** አዎ **2.** የለም	
308	ለልጅዎ ተጨማሪ ምግብ ሲጀምር እድሜዉ ስንት ወር ነበር ?	.....**ወ**ር ነበር	
309	መልሰዎ አዎ ከሆነ ለምን ተጨማሪ ምግብ ጀመሩ ?	1. ትክክለኛ እድሜዉ ስለሆነ 2. ወደ ስራ ስለምመለስ 3. ሌላ ካለ ይገለጽ.....	
310	ከትላነት ንጋት እስከ ዛሬ ንጋት ድረስ ከዚህ በታች የተጠቀሱትን የምግብ አይነቶች ልጅዎ ተመግቧል? (ከአንድ በላይ መልስ መክበብ ይቸላሉ)	6.**ማንኛውም ፍራፍሬና ቅጠላቅጠል /ሙዝ፣ቲማቲም፣አቮካዶ፣አፕል፣ማንጎ፣ፓፓያ**	

	1.**የእናት ጡት ወተት** 2.**ንፁህ ውሀ** 3.**የዱቄት ወተት** 4.**የላም ወተት** 5.**የፍራፍሬ ጭማቂ**	7.**ስጋ** 8.**ማንኛውም ምግብ ከዘይት፣ ከቅቤ ከቅባት የተሰራ** 9.**እንቁላል** 10. **ዓሣ ፣ አይብ ፣ እርጎ** 11. ሌላ ካለ ይጠቀስ.....	
311	ከትላንትና ጠዋት እስከ ዛሬ ጠዋት ባለዉ ጊዜ ዉስጥ ልጅዎን ምን ያህል ጊዜ ፈሳሽ ምግብ ፣ወይም የተደቆሰ ምግብ ፣ወይም ከፊል ፈሳሽ ሆነ ምግብ መገቡት?	1. .....ጊዜ 2. ምንም አልተመገበም 3. አላስታዉስም	
312	ከትላንትና ጧት እስከ ዛሬ ጠዋት ድረስ ልጅዎን ለመመገብ የሚጠቀሙበት እቃ ምንድን ነዉ?	1. ጡጦ 2. ማንኪያና ኩባያ 3. የራሱ ሳህን 4. ጡጦ ፣ ማንኪያና ኩባያ ፣ የራሱ ሳህን 5. ሌላ ካለ ይገለጽ.....	
313	በአሁኑ ወቅት ልጅዎን እያጠቡ ነዉ ?	ነ.አዎን 2. አደለም	
314	መልሰዎ የለም ከሆነ ጡት ማጥባት ለምን አቆሙ ?	1. ዉበት ስለሚቀንስ 2. እናት በመታመሟ/አቅም በማጣቷ 3. ህጻኑ በመታመሙ/አቅም በማጣቱ 4. የጡት ህመም 5. በቂ ወተት ስላልነበረኝ 6. እናት የመንግስት ሰራተኛ በመሆኗ 7. እናት በመጸነሷ 8. ሌላ ምክንያት ካለ ይገለጽ	
315	አሁን የወለዱትን ልጅዎን ምንም አይነት ምግብ ሣይጀምሩ ለስንት ወራት **የጡት ወተት ብቻ አጠቡት?**	ለ .....ወራት	
316	ልጅዎን የጡት ወተት ማጥባት ሲያቋርጡ እድሜዉ ስንት ነበር ?	.....ወር	
317	ልጅዎን ከወለዱ በኋላ ጭራሽ የጡት ወተት ያላጠቡበት ምክኒያት ምንድን ነዉ ?	ነ.የመንግስት ሰራተኛ በመሆኔ 2. የጡት ህመም 3. እናት በመታመሟ/አቅም በማጣቷ	

		4. ህጻኑ በመታመሙ/አቅም በማጣቱ 5. በቂ ወተት ስለሌኝ 6. ሌላ ምክኒያት ካለ ይጠቀስ---------- ----	
318	በእርሰዎ አመለካከት የእናት ጡት ወተት ከተቅማጥ እና ሌሎች ህመም ይከላከላል ብለዉ ያምናሉ?	ነ.አዎ 2. የለም 3. አላዉቅም	
319	በእርሰዎ አመለካከት የእናት ጡት ወተት ህጻናት በተወለዱ በ አንድ ስአት ዉስጥ መጥባት አለባቸዉ ብለዉ ያምናሉ?	ነ.አዎ 2. የለም 3. አላዉቅም	
320	በእርሰዎ አመለካከት የእናት ጡት ወተት ሕጻናት 6 ወር እስኪሞላቸዉ በቂ ነዉ ብለዉ ያምናሉ?	ነ.አዎ 2. የለም 3. አላዉቅም	
321	በእርሰዎ አመለካከት ህጻናት 6 ወር ከሞላቸዉ በኋላ ተጨማሪ ምግብ መጀመር ያስፈልጋል ብለዉ ያምናሉ?	ነ.አዎ 2. የለም 3. አላዉቅም	
322	በእርሰዎ አመለካከት የእናት ጡት ወተት ለህጻናት ሁለት አመት እስኪሞላቸዉ ድረስ መቀጠል አለበት ብለዉ ያምናሉ?	ነ.አዎ 2. የለም 3. አላዉቅም	
323	በእርግዝናዎ ወቅት ወይም ከወለዱ በኋላ ስለጡት ወተት የምክር አገልግሎት/መረጃ አግኝተዉ ያዉቃሉ?	ነ.አዎ 2. የለም 3. አላስታዉስም	
324	መልስዎ አዎ ከሆነ ከጡት ወተት በተጨማሪ ሌላ ምን አይነት የምክር አገልግሎት /መረጃ አግኝተዋል?	ነ. ስለ ጡት ወተት ብቻ 2. ስለ ተጨማሪ ምግብ 3. ጡጦ አመጋገብ 4. ሁሉንም 5. ሌላ ካለ ይጥቀሱ	
325	ለጥያቄ ቁጥር 323 መልስዎ አዎ ከሆነ የምክር አገልግሎቱን /መረጃዉን ማን ሰጠዎት?	ነ.የጤና ባለሙያ 2. የትዳር ጓደኛ 3. ጓደኛ/ ጎረቤት 4. እናት/አባት 5. ማስሜዲያ 6. ሌላ ካለ ይጠቀስ	
	ክፍል ፬- ከሰራ ጋር ተያያዥነት ያላቸዉ ጥያቄዎች		
401	የሚሰሩበት የመንግስት ተቋም ስም ማን ይባላል ?	2. .....መስሪያቤት	
402	በተቋሙ ዉስጥ ያለዎት የስራ መደብ ?	ነ. ፕሳ 2. ጽሐ. 3. መፕ 4. ጥጉ 5. አስተዳደር ሰራተኛ 6. ቴክኒካል ሰራተኛ	

403	በተቋሙ ዉስጥ ያለዎት የቅጥር ሁኔታ ምንድን ነዉ?	1. ሙሉጊዜ ሰራተኛ 2. የትርፍ ስኣት ሰራተኛ 3. ኮነትራት ሠራተኛ	
404	በተቋሙ ዉስጥ ያለዎት ሃላፊነት ምንድን ነዉ?	1. በሃላፊነት 2. ባለሙያ, 3. ድጋፍ ሰጭ ሰራተኛ 4. ሌላ ካለ የጠቀስ _____	
405	እረሰዎ በሚሰሩበት ክፍል ዉስጥ ስንት ሰራተኞች ይገኛሉ?	ብዛት.....	
406	በተቋሙ ዉስጥ በቀን ለምን ያህል ስኣት ይሰራሉ?	ለ.....ስኣት	
407	በተቋሙ ዉስጥ የስራ ሽፍት አለ	ነአዎ 2. የለም	
408	አወ ከሆነ መልሰዎ በተቋሙ ዉስጥ የሚሰሩት የስራ ሽፍት በየትኛዉ ነዉ?	1. ቀን ብቻ 2. ቀን እና ምሽት 3. ማታ 4. ሌላካለ ይገለጽ _____	
409	በተቋሙ ዉስጥ የስራ ሽፍተዎ ምን ያህል ተለዋዋጭ ነዉ?	1. መደበኛ ስኣት 2. ተቀያያሪ 3. ሌላ ካለ ይገለጽ ____	
410	በተቋሙ ዉስጥ በአብዛኛዉ የሚሰሩበት ቦታ ሁኔታ ምን ይመስላል ?	1. ከቤት ዉጭ 2. ከቤት ዉስጥ 3. ሁለቱንም	
411	ወደ መስሪያ ቤትዎ ለመምጣት የሚጠቀሙት ምንድን ነዉ ?	1. በእግር 2. በባስ/ታክሲ 3. ሌላ ካለ ይጠቀስ_____	
412	ከመኖሪያ ቤትዎ ወደ ቢሮ ለመድረስ ምንያህል ደቂቃ ይፈጅበዎታል ?	1. _____ደቂቃ በእግር 2. _____ደቂቃ በመኪና	
413	በቀን ዉስጥ ከልጅዎ ተለይተዉ የሚቆዩበት ረዥም ስኣት ምን ያህል ነዉ ?	.....ስኣት	
414	የወሊድ እረፍት ነበረዎት ?	ነአዎ 2. የለም	
415	መልሰዎ አዎ ከሆነ ለምን ያህል ወር የወሊድ እረፍቶዎን ተጠቀሙ?	.....ወር	
416	ልጅዎን ከወለዱ ከስንት ወር በኋላ ወደ ስራዎ ተመለሱ?	ከ.....ወር በኋላ	
417	በወሊድ እረፍተዎ ወቅት ልጅዎን **የእናት ጡት ብቻ** አጠብተዋል?	ነ. አዎ 2. የለም	

418	መልስዎ የለም ከሆነ ለምን የእናት ጡት ወተት ብቻ አላጠቡም ?	ነ.ወደ ስራ ስለምመለስ 2. በቂ ወተት ስለሌለኝ 3. በህመም ምክኒያት 4. ሌላ ምክኒያት ካለዎት ይገለጽ.....	
419	በስራ ስአት ልጅዎን ለመመገብ ሌላ የሚረዳዎት የቤተሰብ አባላት አለዎት?	ነ.አዎ 2. የለም	
420	መልሰዎ አዎ ከሆነ የሚረዳዎት ማን ነዉ?	ነ.ባል 2. አባት/እናት 3. ሞግዚት/ሰራተኛ 4. ሌላ.....	
421	ልጅዎን ለማጥባት ስንት ጊዜ ወደቤት ይሄዳሉ?	ነ.አንድ ጊዜ 2. ከነጊዜ በላይ 3. አልሄድም	
422	ስራዎ ጡት ለማጥባት አስቸጋሪ አድርጎበዎታል ?	ነ.አዎ 2. የለም	
423	መልሰዎ አዎ ከሆነ ምን ያህል ተጽኖ አሳድሮበዎታል?	ነ.አስቸጋሪ አድርጎል 2. የማይቻል	
424	ተቋሙ ጡት የሚያጠቡ እናቶችን የጡት ማጥቢያ እረፍት ስኣት ይሰጣል ? (ለምሳሌ ዘግይቶ መግባት ፣ቀድሞ መዉጣት...)	ነ.አዎ 2. የለም	
425	መልስዎ አዎ ከሆነ ልጅዎን ጡት ማጥባት በፈለጉ ጊዜ ከስራ ፈቃድ ማግኘት ይችላሉ?	ነ.አዎ 2. የለም	
426	መልሶዎ አዎ ከሆነ በቀን ስንት ጊዜ ፈቃድ ያገኛሉ?	በቀን .....ጊዜ	

Annex-4

Information sheet and consent form

Title of the Research Project: - Assessment of infant feeding practice and Associated Factors among employed women in Gondar city, North West Ethiopia

Name of Principal Investigator: - Tarekegn Asemaw

Name of the Organization:-University of Gondar College Of Medicine and Health Sciences, School Of Public Health

Name of Sponsor: -

Introduction

This information sheet and consent form is prepared for government employed mothers with infant up 12months in Gondar city during the study period 1june to 30 June 2011 who will be participated in the research project. This information sheet and consent form is prepared with the aim of explaining the research project that you are asked to join by the group of research investigators. The main aim of the research project is to assess infant feeding practice and associated factors among government employed mothers

Purpose of the Research Project

To asses infant feeding Practice and associated factors among the government employed mothers , The purpose of this study is to fill the gap and to show the magnitude of infant feeding practice in government employed mothers in Gondar city ,Mothers working in the Government organizations and this will provide valuable information to health care planners to design evidence based policy. The scarcity of research in this area and the need of the information by governmental and nongovernmental organizations makes it feasible for the study.

Procedure

In order to assess infant feeding practice and Associated factors among government employed mothers, we invite you to take part in our project. If you are willing to participate in the project, you need to understand the purpose of the study and give verbal consent. Then; you will be requested to give your response to the data collectors.

Risk and /or Discomfort

By participating in this research project you may feel some discomfort especially on scarifying your time (about 20-25 minutes) otherwise, no risk in participating in this research project and this may not be too much as you are one of the employed mother with infant in governmental organization, so your response provide an important input to show the gap and means to improve the work place environment and infant feeding.

Benefits

If you are participating in this research project, the output of the study will have both direct and indirect benefit to you, but your participation is likely to help us in showing the problems faced by employed women working in government organizations in Gondar city in relation to infant feeding; prevalence of exclusive breast feeding, and optimal infant feeding practice and to recommend appropriate intervention.

Incentives/Payments for Participating

You will not be provided any incentives or payment to take part in this project.

Confidentiality

The information collected from this research project will kept confidential and information about you that will be collected by this study will be stored in a file, without your name,

but a code number assigned to it. And it will not be revealed to anyone except the principal investigator and will be kept locked with key.

Right to Refuse or Withdraw

You have the full right to refuse from participating in this research. You can choose not to respond some or all the questions and this will not affect you from getting any kind of service given to government employed mothers. You have also the full right to withdraw from this study at any time you wish, without losing any of your right.

Person to contact

This research project will be reviewed and approved by the ethical committee of the University of Gondar. If you want to know more information you can contact the committee through the address below. If you have any question you can contact any of the following individuals and you may ask at any time you want

1. Professor Yigzaw Kebede :School of Public Health, University of Gondar
2. Dr.Hardeep Raisharma : School of Occupational Health ,university of Gondar
3. Tarekegn Asemaw: cell phone, 0918775075.

Declaration

I, the undersigned, senior MPH student declare that this thesis is my original work in partial fulfillment of the requirement for the degree of Master of Public Health.

Name: Tarekegn Asemaw

Signature: _____

Place of submission: School of public Health, College of Medicine and Health Sciences, University of Gondar.

Date of Submission: 23, September, 2011

This thesis work has been submitted for examination with my/our approval as university advisor/s/.

Advisors

Name	**Signature**
_____	_____
_____	_____